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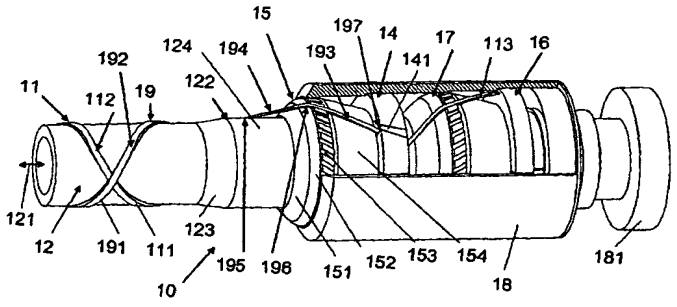
(54) Title: A FLEXIBLE PIPE CONNECTED TO AN END FITTING



(57) Abstract: The invention relates to a pipe structure (10) comprising a length of a flexible pipe connected to an end fitting, the flexible pipe comprising an armour layer (11; 19) and an underlying pipe layer (12; 11) to said armour layer, said underlying pipe layer having an outer surface around which armouring wires (111; 191) of an armouring layer are helically wound. The object of the present invention is to provide a coupling between a flexible pipe comprising armouring wires and an end fitting, the coupling exerting a relatively low bending or flexure strain on the wires during normal operation of the flexible pipe. The problem is solved in that the transition path of an armouring wire between the flexible pipe and the end fitting comprises an straight-line-section (194) between a wire-pipe-exit-point (195) where the wire extends away from its underlying pipe layer and a straight-line-end-point (196) on a support unit (15) of the end fitting where the armouring wire in question has its first tangential point of contact. This ahs the advantage that in a loaded situation where the armouring wires will elongate elastically leading to a change in the helical angle of the armouring wires, a pipe structure according to the invention will experience a slight twist and a controlled bending of the armouring wires on the surface of the support unit (due to a possible change in the base point of contact of the armouring wire with the support unit induced by the change of helical angle), thereby avoiding substantial bending of the individual armouring wires, which is of particular importance when the armouring wires are formed of a composite material. The invention may be used in flexible pipes for the off shore transport of fluids (e.g. oil).

WO 2004/051131 A1